

Work Order ID 115602

April-04-14 10:14:23 AM

115602

Page 1

Item ID: D3538-1

Accept

N900040100

Setup

Start

NS1

Revision ID:

Item Name: Hinge Bracket

Stop

NS2

Start Date: 4/04/14 Start Qty: 6.00

6

Cust Item ID:

Required Date: 4/04/14 Req'd Qty: 6.00

6

Customer:

Reference:

Approvals: Process Plan: MLSDate: 14-04-08

Tooling:

Date:

Run

Start

NR1

QC: _____

Date: _____

SPC (Y/N):

Date: _____

Stop

NR2

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr	Revision Nbr								
D3538	Rev A								
100		0.00							

100 BAND SAW 0.00 **DAS** **44** **9-89** **14/05/11**
 Bandsaw Memo Cut blanks 1.500" long

110	HAAS CNC VERTICAL MACHINING #1	0.00							
-----	--------------------------------	------	--	--	--	--	--	--	--

110 HAAS 1	Memo	0.00							
---------------------	------	------	--	--	--	--	--	--	--

HAAS CNC vertical machine #1 1-Machine as per Folio FA651 and Dwg D35382-Deburr

120	QC2- Inspect parts off machine FAJ/FAIB	0.00							
-----	---	------	--	--	--	--	--	--	--

120 QC	Memo	0.00							
-----------------	------	------	--	--	--	--	--	--	--

Quality Control

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only 

Work Order: _____	DISPOSITION			AGAINST DEPARTMENT/PROCESS					
Part No. _____	Rework <input type="checkbox"/>	Scrap <input type="checkbox"/>	Use-as-is <input type="checkbox"/>	Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>		
NCR No. _____	Suspected Unapproved <input type="checkbox"/>			Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coor. <input type="checkbox"/>	Quality <input type="checkbox"/>		
				Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>		
				Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>			

Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design									
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

FAULT CATEGORY

Landing Gear		General									
	Bending		Bend <input type="checkbox"/>	Folio/Program			Outside Dimensions			Pressure/Forced	
	Centre Not Concentric		BOM/Route <input type="checkbox"/>	Grain			Over/Under tolerance			Set-up	
	Cracks		Broken/Damage/Defect <input type="checkbox"/>	Hardware			Part Incorrect			Temperature/Cure	
	Crimp/Kink/Ripple/Wave		Burrs <input type="checkbox"/>	Inspection Incomplete/Unqualified			Part Lost/Missing			Weld	
	Cuffs		Contamination <input type="checkbox"/>	Instructions Incomplete/Unclear			Part Moved			Wrong Stock Pulled	
	Crushing		Countersink <input type="checkbox"/>	Misaligned/off center			Positioned Wrong			Other	
	Heat Treat		Cut Too Short <input type="checkbox"/>	Mislabeled			Power Loss/Surge				
	Inspection Strip in Tube		Drawing <input type="checkbox"/>	Misread							
	Marks/Chatter		Drill Holes <input type="checkbox"/>	Off-set							
	Turning Sequence		Finish <input type="checkbox"/>	Out of Calibration							
	Wave/Twist in Tube		Fit/Function <input type="checkbox"/>	Out of Sequence							

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Page 2

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Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start

NR1

QC:

Date:

SPC (Y/N):

Date:

Stop

NR2Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

130

QC8- Inspect parts - second check

0.00

6

Ø

14-05-13

130

QC

Quality Control

140

Chemical Conversion Coat per QSI005 4.1

0.00

B4

14-05-17

140

HandFinish

Hand Finishing

150

White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum

0.00

6

Ø

14-05-14

150

Powdercoat

Powder Coating

M 128959

0.00

Memo

START TIME:

3:15

OVEN TEMPERATURE:

FINISH TIME:

345

B4

34

8:59

DQA:

Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed:

Date: _____

Work Order update only

Work Order: _____	DISPOSITION <input type="checkbox"/> Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Suspected Unapproved	AGAINST DEPARTMENT/PROCESS <input type="checkbox"/> Skid-tube <input type="checkbox"/> Crosstube <input type="checkbox"/> Small Fab <input type="checkbox"/> Finishing <input type="checkbox"/> Large Fab <input type="checkbox"/> Composite	<input type="checkbox"/> Water Jet <input type="checkbox"/> Prod. Eng. Coor. <input type="checkbox"/> Rec/Store/Packaging <input type="checkbox"/> Supplier	<input type="checkbox"/> Engineering <input type="checkbox"/> Quality <input type="checkbox"/> Other
Part No. _____				
NCR No. _____				

Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design									
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

FAULT CATEGORY

Landing Gear <input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric <input type="checkbox"/> Cracks <input type="checkbox"/> Crimp/Kink/Ripple/Wave <input type="checkbox"/> Cuffs <input type="checkbox"/> Crushing <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Marks/Chatter <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube	General <input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damage/Defect <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drawing <input type="checkbox"/> Drill Holes <input type="checkbox"/> Finish <input type="checkbox"/> Fit/Function	<input type="checkbox"/> Folio/Program <input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete/Unqualified <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Misaligned/off center <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Off-set <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence	<input type="checkbox"/> Outside Dimensions <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge	<input type="checkbox"/> Pressure/Forced Set-up <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled	

Work Order ID 115602

April-04-14 10:14:23 AM

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Page 3

Item ID: D3538-1

Accept

N900040100

Setup

Start

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Revision ID:

Item Name: Hinge Bracket

Stop

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Start Date: 4/04/14 Start Qty: 6.00

6

Cust Item ID:

Required Date: 4/04/14 Req'd Qty: 6.00

6

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run

Start

NR1

QC:

Date:

SPC (Y/N):

Date:

Stop

NR2Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

160

QC3- Inspect Part Finish

0.00

DAS
27
9.89
4/5/15***160***

QC

Quality Control

170

Identify as per dwg & Stock Location: ST

0.00

DAS
6
9.89***170***

Packaging

Packaging

180

QC21- Final Inspection - Work Order Release

0.00

180

QC

Quality Control

0.00

6
14/5/15MCS 14-05-15
MCS 14-05-15

DQA: _____ Date: _____

Date:



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only

Work Order: _____ Part No. _____ NCR No. _____				DISPOSITION		AGAINST DEPARTMENT/PROCESS					
Suspected Unapproved				Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/>	Skid-tube <input type="checkbox"/> Machining <input type="checkbox"/> Thermoforming <input type="checkbox"/> Large Fab <input type="checkbox"/>	Crosstube <input type="checkbox"/> Small Fab <input type="checkbox"/> Finishing <input type="checkbox"/> Composite <input type="checkbox"/>	Water Jet <input type="checkbox"/> Prod. Eng. Coor. <input type="checkbox"/> Rec/Store/Packaging <input type="checkbox"/> Supplier <input type="checkbox"/>	Engineering <input type="checkbox"/> Quality <input type="checkbox"/> Other <input type="checkbox"/>			
Root Cause	Date	Step	Qty	Description of work order update or non-conformance		Initial Chief Eng	Action Description		Sign & Date	Verification	QC Inspector
Design											
Doc/Data											
Equip/Tooling											
Handling/Pre											
Material											
Operator											
Offset/Setup											
Process											
Supplier											
Training											
Transport											
Unapproved											
FAULT CATEGORY											
Landing Gear			General								
Bending Centre Not Concentric Cracks Crimp/Kink/Ripple/Wave Cuffs Crushing Heat Treat Inspection Strip in Tube Marks/Chatter Turning Sequence Wave/Twist in Tube			Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damage/Defect <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drawing <input type="checkbox"/> Drill Holes <input type="checkbox"/> Finish <input type="checkbox"/> Fit/Function <input type="checkbox"/> Folio/Program <input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete/Unqualified <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Misaligned/off center <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Off-set <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence <input type="checkbox"/> Outside Dimensions <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge <input type="checkbox"/> <input type="checkbox"/> Other								

Picklist Print

Page 1

April-04-14 10:14:23 AM

Work Order ID: 115602

115602

Parent Item: D3538-1

D3538-1

Parent Item Name: Hinge Bracket

Start Date: 4/04/14

Required Date: 4/04/14

Start Qty: 6.00

Required Qty: 6.00

Comments: IPP Rev:A New Issue 06-10.03 EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M6061T6B1.250X01.25 0		Purchased		No		100	f	34.8800	0.19	1.2			

M6061T6B1 250X01 250

6061-T6 Bar 1.25 x 1.25

**

Location	Loc Qty	Loc Code
MAT003	34.88	
124443	0.025	
m126647	10.855	
✉ m128247	24	

DAS

44

9-08

14/05/14

DQA: _____ Date: _____

QA Closed: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed:

Date:

Work Order update only

DART AEROSPACE LTD		Work Order:	115602
Description: Hinge Bracket		Part Number:	D3538-1
Inspection Dwg: D3538	Rev: A		Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

First Article Prototype

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
0.75	+/-0.030	.75	✓		FK-04	Vern.
0.375	+/-0.010	.375	✓		"	"
0.241	+/-0.010	.241	✓		"	"
0.830	+/-0.010	.830	✓		"	"
Ø0.172	+0.005/-0.001	.174	✓		"	"
Ø0.400	+0.006/-0.001	.405	✓		"	"
0.031	+/-0.010	.030	✓		"	"
1.31	+/-0.030	1.312	✓		"	"
0.375	+/-0.010	.375	✓		FK-04	Vern.
0.99	+/-0.030	.987	✓		"	"
0.125	+/-0.010	.123	✓		"	"
R0.19	+/-0.030	.19	✓		R-G.	
0.083	+/-0.010	.083	✓		FK-04	Vern.
93°	+/-0.5°	93°	✓		A-G	
0.674	+/-0.010	.671	✓		FK-04	Vern.
R0.38	+/-0.030	.374	✓		R-G.	
Ø0.172	+0.005/-0.001	.173	✓		FK-04	Vern.

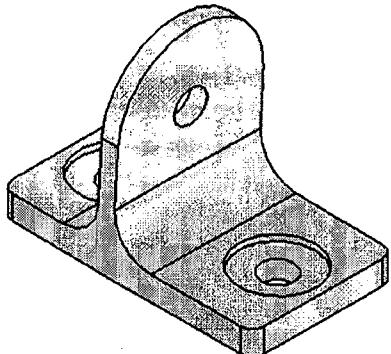
DAS

Measured by:	44 9-89	Audited by:		Prototype Approval:	N/A
Date:	14/05/12	Date:	14.05.13	Date:	N/A

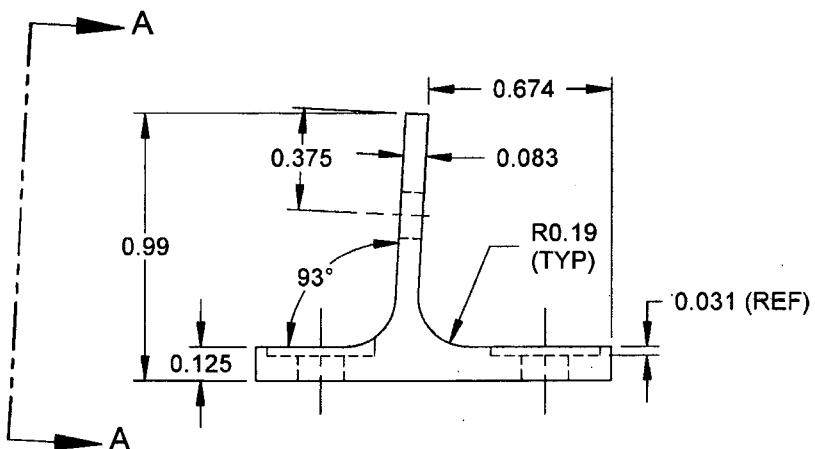
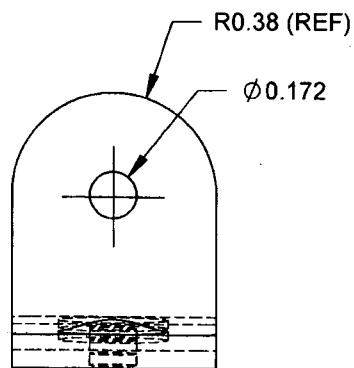
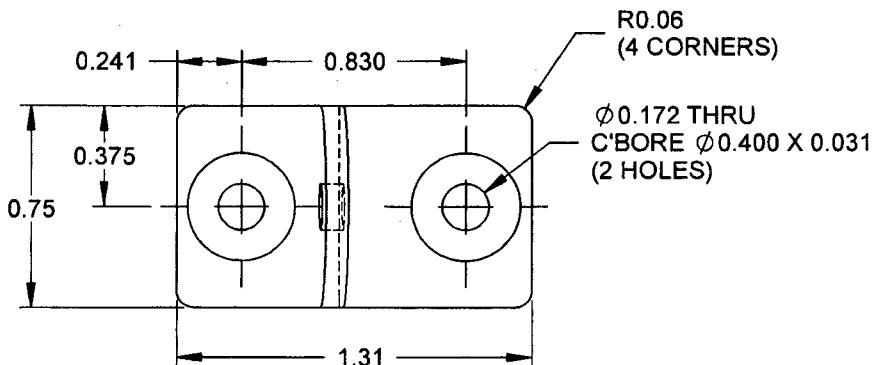
Rev	Date	Change	Revised by	Approved
A	07.05.31	New Issue	KJ/JLM 	

DART

DESIGN <i>LE</i>	DRAWN BY <i>LE</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA		
CHECKED <i>PH</i>	APPROVED <i>MM</i>	DRAWING NO. D3538	REV. A	SHEET 1 OF 2
DATE 06.10.13		TITLE HINGE BRACKET	SCALE 1:1	
REV A	DATE 06.10.13	DESCRIPTION NEW ISSUE		



RELEASED
(06.10.13) *MM*



AUXILIARY VIEW A

D3538-1 HINGE BRACKET

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 115602
MJ
140408

NOTES:

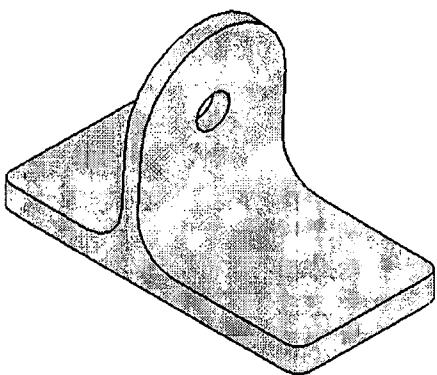
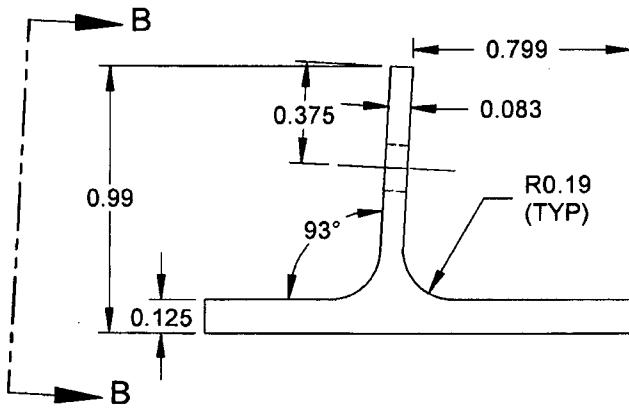
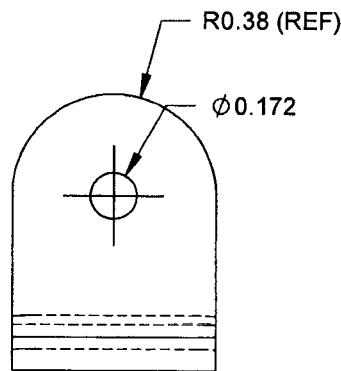
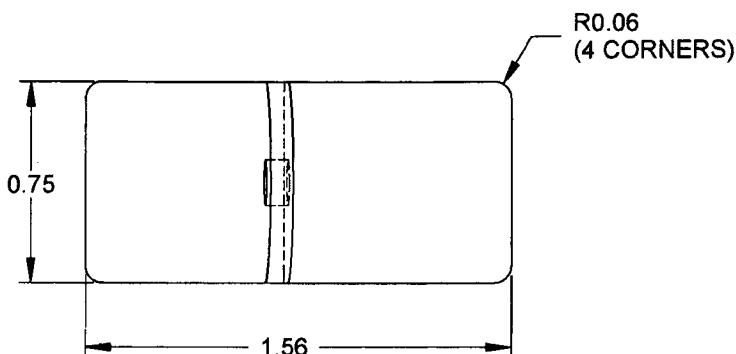
- 1) MATERIAL: 6061-T6 ALUMINUM PER QQ-A-225/8 OR QQ-A-200/8 (REF DART SPEC M6061T6B)
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
POWDER COAT WHITE (4.3.5.1) PER DART QSI 005 4.3
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED
- 5) BREAK ALL SHARP CORNERS TO 0.010 MAX
- 6) IDENTIFY WITH P/N D3538-1 USING FINE POINT PERMANENT INK MARKER

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DART

DESIGN <i>CE</i>	DRAWN BY <i>CE</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>PH</i>	APPROVED <i>SH</i>	DRAWING NO. D3538	REV. A SHEET 2 OF 2
DATE 06.10.13		TITLE HINGE BRACKET	SCALE 1:1

**RELEASED**
06.10.13 *SH***AUXILIARY VIEW B****D3538-3 HINGE BRACKET****NOTES:**

- 1) MATERIAL: 6061-T6 ALUMINUM PER QQ-A-225/8 OR QQ-A-200/8 (REF DART SPEC M6061T6B)
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
POWDER COAT WHITE (4.3.5.1) PER DART QSI 005 4.3
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED
- 5) BREAK ALL SHARP CORNERS TO 0.010 MAX
- 6) IDENTIFY WITH P/N D3538-3 USING FINE POINT PERMANENT INK MARKER

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